

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Howard J. Worman and Naoto Mamiya
Serial No. : 09/407,432
Filed : September 29, 1999
For : A HCV CORE PROTEIN BINDING AGENT FOR TREATMENT
OF HEPATITIS C VIRUS INFECTION

1185 Avenue of the Americas
New York, New York 10036
January 19, 2001

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

**RESPONSE TO
December 19, 2000 NOTICE TO COMPLY WITH
REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING
NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES**

This is a response to the Communication issued December 19, 2000 in connection with the above-identified application. A response to the December 19, 2000 Communication is due by January 19, 2001 and this Amendment is being timely filed.

In response to the December 19, 2000 Notice, a copy of which is attached as **Exhibit A**, applicants submit a paper copy and computer readable copy of the nucleotide and/or amino acid sequences disclosed in the application in order to fulfill the requirements of 37 C.F.R. §1.821 and 1.825 in connection with this application. Applicants submit herewith sixteen (16) pages of Sequence Listing in compliance with the requirements of §1.821 and 1.825 attached as **Exhibit B**.

Applicants also submit herewith a formatted Sequence Listing in

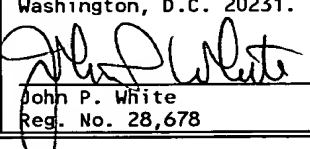
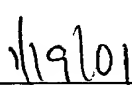
Applicants: Worman et al.
Serial No.: 09/407,432
Filed : September 29, 1999
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computer readable form which complies with the requirements of 37 C.F.R. §1.824. In addition, applicants submit a Statement in Accordance with 37 C.F.R. §1.821(f), attached as **Exhibit C**, certifying that the computer readable form containing the nucleic acid and/or amino acid sequences as required by 37 C.F.R. §1.821(e) contains the same information which is submitted as the "Sequence Listing".

If a telephone interview would be of assistance in advancing prosecution of the subject application, applicants' undersigned attorney invites the Examiner to telephone him at the number provided below.

No fee is deemed necessary in connection with the filing of this Amendment. However, if any fee is required, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 03-3125.

Respectfully submitted,

I hereby certify that this correspondence is being deposited this date with the U.S. Postal Service with sufficient postage as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231.	
 John P. White Reg. No. 28,678	 Date


John P. White
Registration No. 28,678
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1185 Avenue of the Americas
New York, New York 10036
(212) 278-0400

**NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING
NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES**

Applicant must file the items indicated below within the time period set the Office action to which the Notice is attached to avoid abandonment under 35 U.S.C. § 133 (extensions of time may be obtained under the provisions of 37 CFR 1.136(a)).

The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 C.F.R. 1.821 - 1.825 for the following reason(s):

- ☒ 1. This application clearly fails to comply with the requirements of 37 C.F.R. 1.821-1.825. Applicant's attention is directed to these regulations, published at 1114 OG 29, May 15, 1990 and at 55 FR 18230, May 1, 1990.
- ☐ 2. This application does not contain, as a separate part of the disclosure on paper copy, a "Sequence Listing" as required by 37 C.F.R. 1.821(c).
- ☐ 3. A copy of the "Sequence Listing" in computer readable form has not been submitted as required by 37 C.F.R. 1.821(e).
- ☐ 4. A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 C.F.R. 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing."
- ☐ 5. The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A Substitute computer readable form must be submitted as required by 37 C.F.R. 1.825(d).
- ☐ 6. The paper copy of the "Sequence Listing" is not the same as the computer readable form of the "Sequence Listing" as required by 37 C.F.R. 1.821(e).
- ☐ 7. Other: _____

Applicant Must Provide:

- ☒ An initial or substitute computer readable form (CRF) copy of the "Sequence Listing".
- ☒ An initial or substitute paper copy of the "Sequence Listing", as well as an amendment directing its entry into the specification.
- ☒ A statement that the content of the paper and computer readable copies are the same and, where applicable, include no new matter, as required by 37 C.F.R. 1.821(e) or 1.821(f) or 1.821(g) or 1.825(b) or 1.825(d).

For questions regarding compliance to these requirements, please contact:

For Rules Interpretation, call (703) 308-4216

For CRF Submission Help, call (703) 308-4212

PatentIn Software Program Support (SIRA)

Technical Assistance.....703-287-0200

To Purchase PatentIn Software.....703-306-2600

PLEASE RETURN A COPY OF THIS NOTICE WITH YOUR RESPONSE

SEQUENCE LISTING

<110> Worman, Howard J.
Mamiya, Naoto

<120> HCV CORE PROTEIN BINDING AGENTS FOR TREATMENT OF
HEPATITIS C VIRUS INFECTION

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<140> 09/407,432

<141> 1999-09-29

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 1090 1095 1100
 Thr Met Met Phe Ser Ala Thr Phe Pro Lys Glu Ile Gln Met Leu Ala
 1105 1110 1115 1120
 Arg Gln Thr Leu Met Phe Ser Ala Thr Phe Pro Ala Asp Ile Gln His
 1125 1130 1135
 Leu Ala Arg Asp Phe Leu Ser Asp Tyr Ile Phe Leu Ser Val Gly Arg
 1140 1145 1150
 Val Gly Ser Thr Ser Glu Asn Ile Thr Gln Lys Val Leu Tyr Val Glu
 1155 1160 1165
 Asn Gln Asp Lys Lys Ser Ala Leu Leu Asp Ala Arg Asp Phe Leu Asp
 1170 1175 1180
 Glu Tyr Ile Phe Leu Ala Val Gly Arg Val Gly Ser Thr Ser Glu Asn
 1185 1190 1195 1200
 Ile Thr Gln Lys Val Val Trp Val Glu Glu Ser Asp Lys Arg Ser Phe
 1205 1210 1215
 Leu Leu Asp Leu Leu Asn Ala Thr Gly Lys Asp Ser Leu Thr Leu Val
 1220 1225 1230
 Phe Val Glu Thr Arg Asp Phe Leu Asp Glu Tyr Ile Phe Leu Ala Val
 1235 1240 1245
 Gly Arg Val Gly Ser Thr Ser Glu Asn Ile Thr Gln Lys Val Val Trp
 1250 1255 1260
 Val Glu Glu Ala Asp Lys Arg Ser Phe Leu Leu Asp Leu Leu Asn Ala
 1265 1270 1275 1280
 Thr Gly Lys Asp Ser Leu Ile Leu Val Phe Val Glu Thr Lys Leu Leu
 1285 1290 1295
 Ser Ala Ser Thr Asp Gly Leu Thr Leu Ile Phe Val Glu Thr Lys Arg
 1300 1305 1310

Met Ala Asp Gln Leu Thr Asp Phe Leu Ile Met Gln Asn Phe Arg Ala
1315 1320 1325

Thr Ala Ile His Gly Asp Arg Thr Gln Ser Glu Arg Glu Arg Ala Leu
1330 1335 1340

Ala Ala Phe Arg Ser Gly Ala Ala Lys Lys Gly Ala Asp Ser Leu Glu
1345 1350 1355 1360

Asp Phe Leu Tyr His Glu Gly Tyr Ala Cys Thr Ser Ile His Gly Asp
1365 1370 1375

Arg Ser Gln Arg Asp Arg Glu Glu Ala Leu His Gln Phe Arg Ser Gly
1380 1385 1390

Lys Ser Pro Ile Leu Val Ala Thr Ala Val Ala Ala Arg Gly Leu Asp
1395 1400 1405

Ile Ser Lys Gly Ala Asp Ser Leu Glu Asp Phe Leu Tyr His Glu Gly
1410 1415 1420

Tyr Ala Cys Thr Ser Ile His Gly Asp Arg Ser Gln Arg Asp Arg Glu
1425 1430 1435 1440

Glu Ala Leu His Gln Phe Arg Ser Gly Lys Ser Pro Ile Leu Val Ala
1445 1450 1455

Thr Ala Val Ala Ala Arg Gly Leu Asp Ile Ser Asn Thr Leu Leu Val
1460 1465 1470

Ala Thr Ala Val Ala Ala Arg Gly Leu Asp Ile Pro Asn Val Thr His
1475 1480 1485

Val Ile Asn Tyr Asp Leu Pro Ser Asp Val Asp Asp Tyr Val His Arg
1490 1495 1500

Ile Gly Arg Thr Gly Arg Ala Gly Asn Thr Gly Leu Ala Thr Ala Phe
1505 1510 1515 1520

Glu Asn Ser Glu Asn Ser Asn Val Lys His Val Ile Asn Phe Asp Leu
1525 1530 1535

Pro Ser Asp Ile Glu Glu Tyr Val His Arg Ile Gly Arg Thr Gly Arg
1540 1545 1550

Val Gly Asn Leu Gly Leu Ala Thr Ser Phe Phe Asn Glu Arg Asn Ile
1555 1560 1565

Asn Ile Thr Lys Asp Leu Leu Asp Leu Leu Val Glu Ala Lys Gln Glu
 1570 1575 1580

Val Lys His Val Ile Asn Phe Asp Leu Pro Ser Asp Ile Glu Glu Tyr
 1585 1590 1595 1600

Val His Arg Ile Gly Arg Thr Gly Arg Val Gly Asn Leu Gly Leu Ala
 1605 1610 1615

Thr Ser Phe Phe Asn Glu Arg Asn Ile Asn Ile Thr Lys Asp Leu Leu
 1620 1625 1630

Asp Leu Leu Val Glu Ala Lys Gln Glu Val Asn Ile Val Lys Gly Leu
 1635 1640 1645

His Glu Ile Leu Thr Glu Ala Asn Gln Glu Val Pro Ser Phe Leu Lys
 1650 1655 1660

Asp Ala Met Met Ser Ala Pro Gly Ser Arg Ser Asn Ser Arg Arg Gly
 1665 1670 1675 1680

Gly Phe Gly Arg Asn Asn Asn Arg Asp Tyr Arg Lys Ala Gly Gly Ala
 1685 1690 1695

Ser Ala Gly Gly Val Pro Ser Trp Leu Glu Asn Met Ala Tyr Glu His
 1700 1705 1710

His Tyr Lys Gly Ser Ser Arg Gly Arg Ser Lys Ser Ser Arg Phe Ser
 1715 1720 1725

Gly Gly Phe Gly Ala Arg Asp Tyr Arg Gln Ser Ser Gly Ala Ser Ser
 1730 1735 1740

Ser Ser Phe Ser Ser Ser Arg Ala Ser Ser Ser Arg Ser Gly Pro Ser
 1745 1750 1755 1760

Trp Leu Glu Asn Met Ala Phe Glu His His Tyr Lys Gly Gly Ser Arg
 1765 1770 1775

Gly Arg Ser Lys Ser Arg Phe Ser Gly Gly Phe Gly Ala Arg Asp Tyr
 1780 1785 1790

Arg Gln Ser Ser Gly Ala Ser Ser Ser Ser Phe Ser Ser Gly Arg Ala
 1795 1800 1805

Ser Asn Ser Arg Ser Gly Gly Gly Trp Gly Ser Ser Arg Ser Arg Asp
 1810 1815 1820

Asn Ser Phe Arg Gly Gly Ser Gly Trp Gly Ser Asp Ser Lys Ser Ser
1825 1830 1835 1840

Gly Trp Gly Asn Ser Gly Gly Ser Asn Asn Ser Ser Trp Trp Gly Gly
1845 1850 1855

Gly His Gly Ser Ser Arg Gly Arg Gly Gly Gly Tyr Gly Gly Phe
1860 1865 1870

Tyr Asn Ser Asp Gly Tyr Gly Gly Asn Tyr Asn Ser Gln Gly Val Asp
1875 1880 1885

Trp Trp Gly Asn Ser His Gly Ser Ser Arg Gly Phe Gly Gly Gly Ser
1890 1895 1900

Tyr Gly Gly Phe Tyr Asn Ser Asp Gly Tyr Gly Gly Asn Tyr Ser Ser
1905 1910 1915 1920

Gln Gly Val Asp Trp Trp Gly Asn
1925

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Howard J. Worman and Naoto Mamiya
Serial No. : Not Yet Known
Filed : September 29, 1999
For : A HCV CORE PROTEIN BINDING AGENT FOR
TREATMENT OF HEPATITIS C VIRUS INFECTION

1185 Avenue of the Americas
New York, New York 10036
January 19, 2001

Assistant Commissioner for Patents
Washington, D.C. 20231

STATEMENT IN ACCORDANCE WITH 37 C.F.R. §1.821(f)

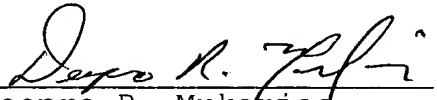
In accordance with 37 C.F.R. §1.821(f), I hereby certify that the computer readable form containing the nucleic acid and/or amino acid sequences required by 37 C.F.R. §1.821(f) and submitted in connection with the above-identified application, has the same information as the paper copy of the Sequence Listing submitted herewith as Exhibit B to the Amendment.

I hereby declare that all statements made herein of my knowledge are true and that all statements made on information and beliefs are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such

Applicants: Worman et al.
Serial No.: Not Yet Known
Filed: September 29, 1999
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false statements may jeopardize the validity of the application
or any patent issued thereon.

Respectfully submitted,



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